



**National  
Transportation  
Safety Board**

**Safety Information**

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Washington, D.C. 20594

**TESTIMONY OF  
BILL GOSSARD  
NATIONAL TRANSPORTATION SAFETY BOARD  
BEFORE THE  
COMMITTEE ON TRANSPORTATION, TOURISM, FORESTRY, AND  
NATURAL RESOURCES  
WISCONSIN SENATE  
ON  
SENATE BILL 162 – PERSONAL FLOTATION DEVICE WEAR BY  
CHILDREN  
MADISON, WISCONSIN  
MAY 21, 2009**

Good morning, Chairman Holperin and members of the Committee. It is a pleasure to be here in Madison today to discuss the National Transportation Safety Board's recreational boating safety recommendation addressing the use of personal flotation devices for children.

The National Transportation Safety Board is an independent Federal agency charged by Congress to investigate transportation accidents, determine their probable cause, and make recommendations to prevent their recurrence. The Safety Board has neither regulatory authority nor grant funds. The recommendations that arise from our investigations and safety studies are our most important product. In our more than 40 year history, more than 80 percent of our recommendations have been adopted by organizations and government bodies in a position to effect improvements in transportation safety.

Recreational boating fatalities are very high, even exceeding fatalities in general aviation accidents. In 2007, the States reported to the U.S. Coast Guard that 685 persons were killed and 3,673 persons were seriously injured in boating accidents in this country. Of the 685 fatalities, over two-thirds drowned and about ninety percent were not wearing life jackets. There were 18 boating deaths in Wisconsin in 2007. In the past 5 years, 92 people died on Wisconsin's waters.

The Safety Board is pleased to report that between 2006 and 2007 the number of children who drowned in boating accidents declined by 45 percent. The Safety Board believes that this reduction is, in part, the result of the nearly universal action by States (48 of 50) to require children to wear life jackets.

Other information indicates that recreational boating injuries are even higher than the numbers reported to the U.S. Coast Guard. Information from an American Red Cross survey indicates that more than 355,000 persons are injured annually from recreational boating accidents, and more than 40 percent of the injuries require medical treatment beyond first aid. A study by the Centers for Disease Control, released in 1997, found that as many as 32,000 injuries from personal watercraft alone required medical treatment.

As a result of its concern regarding the number of boating deaths and injuries, the Safety Board in 1993 conducted a study of recreational boating accidents and their causes. Examining recreational boating accidents that occurred in 18 States in 1991, the Board reviewed information on 407 fatal recreational boating accidents, which resulted in 478 fatalities. These accidents represented about 52 percent of the accidents and about 52 percent of the fatalities that occurred in 1991. The Safety Board also reviewed U.S. Coast Guard data and studies performed by other organizations. Further, the Board investigated three recreational boating accidents from 1992 in which 13 persons died, including 4 children and 2 teenagers. The minimal use of personal flotation devices (PFDs) that we found in our investigations of fatal recreational boating accidents was particularly notable.

The failure to use PFDs can have fatal consequences. Failure to use PFDs is the leading cause of recreational boating drowning fatalities. Of the 478 fatalities that occurred in the accidents examined in our 1993 study, 351 resulted from drowning. Of those who drowned and for whom information on PFD use was available, 85 percent (281) did not wear PFDs. The Safety Board reviewed the circumstances of the 281 drownings in which the victims were not wearing a PFD and determined that as many as 238 persons (85 percent) may have survived had they been correctly wearing a PFD. Only a few factors can negate the effectiveness of PFDs, most often hypothermia and injury as a result of blunt trauma.

The 2003 boating experience again confirmed the importance of PFD use. According to U.S. Coast Guard boating accident statistics, nearly 86 percent of the fatalities who drowned in recreational boating accidents in 2003 could have survived if they had taken the simple step of wearing a lifejacket. Drownings accounted for 481, or nearly 68 percent, of the 703 recreational boating fatalities in 2003. PFDs could have prevented an estimated 416 or 86 percent of those fatalities. There is no question that wearing a PFD can save your life.

One accident in Arkansas that the Safety Board investigated highlights the Board's concerns. At about 11:30 on a Sunday morning, a 9-person family boarded a family-owned boat at a public boat launching area on the Fourche La Fave River near Perryville, Arkansas. The family, which included a man, a woman, and children ranging in age from 16 months to 14 years, intended to go down the river to fish from the bank. The man and a 12-year-old girl were the only persons on board who could swim.

Although weather conditions were ideal, the boat and the passengers were not adequately prepared for potential problems. The weather was clear and 90 degrees. Visibility was good, and there were only light winds. The 14-foot long aluminum boat was open, flat-bottomed, and not equipped with PFDs. With a 9.9-horsepower outboard motor, the motorboat fell under the Arkansas exemption, which did not require motorboats of less than 10 horsepower to carry PFDs. The passengers, who also did not wear PFDs, sat on four bench seats. At the site of the accident, the river was approximately 80 feet wide, and its depth at the center varied from 9 to 50 feet.

As the boat headed downstream, water splashed on the boy and girl who were sitting in the front seat. They moved rearward, causing the boat to flood. It sank in the middle of the river, in about 14 feet of water, and about 100 feet downstream from the boat launching area. The 12 year-old girl swam to shore, and a 14 year-old girl supported herself in the water by holding onto the bow of the boat, which remained above the surface.

Two fishermen, who arrived at the boat-launching area shortly after the accident, found the 12-year-old on the riverbank and the 14-year-old holding onto the boat. The men entered the water and brought the 14-year-old ashore. One rescuer searched the riverbank for more survivors. He found an unconscious 4-year-old in the water, near the

riverbank, in the approximate area of the accident. Although he administered cardiopulmonary resuscitation (CPR), the child was pronounced dead upon arrival at a local hospital. Officials started a search, and found five other victims that day and one the next day. Five children and two adults died in this one accident.

The Safety Board's investigation of this accident concluded that the lack of PFDs contributed to the loss of these seven lives.

Another brief example shows the effectiveness of PFDs. Three men launched a small inflatable raft on the Arkansas River near Swissvale, Colorado. A Colorado State park ranger had spotted the three men at one point. Observing that one rafter was not wearing a PFD, the ranger contacted the men. After determining that the raft carried the correct number of PFDs, the park ranger recommended that the remaining rafter also wear his PFD. The rafter asked if he was legally required to wear a PFD and was told that he was not, whereupon he did not put it on, despite the fact that he could not swim.

After traveling about 2 miles, the men started through a rapid. Their raft was thrown sideways, hit a small rock, and capsized, throwing all three men into the water. Two men wearing PFDs struggled and eventually reached the riverbank. The third man, who had earlier refused to use a PFD, drowned.

At this point I would like to digress to describe a commercial vessel accident that received a lot of media attention. The accident I am referring to is the capsizing off the coast of Oregon of the **Taki Too**, a charter fishing boat carrying 17 passengers and 2 crew members. The good news is that 8 of those aboard managed to struggle through 50-degree waters to safety on the shore. The bad news is the other 11 did not and were drowned. What was so troubling about this accident is that none of the 8 deceased persons found outside the vessel were wearing PFDs (1 person was found in the vessel and 2 people have not been found.) Simple PFD use could have very well saved those 8 lives.

While the **Taki Too** is an extreme accident and was not a recreational boat, it illustrates the range of circumstances where PFDs can make a difference. There are numerous cases that support the need for PFD wear. State and federal laws require that all boats have life jackets on board. The problem is that they do not work if no one is wearing them. As with many accidents in which boats capsize, people don't think to put them on until it's too late. This is why the Safety Board has recommended that the States consider minimum standards to reduce the number and severity of boating accidents. Requiring children to wear PFDs could, over time, result in more adults who wear PFDs, such as has occurred with the use of child safety seats and safety belts in automobiles.

States should require greater use of PFDs, especially among children. Currently, 48 States, the District of Columbia, and Puerto Rico have some type of PFD use requirement for children. Wisconsin is the only State other than Virginia without a PFD requirement. The Safety Board would like to see Wisconsin become the 49th State to

do so. The Safety Board considers recreational boating safety and the issue of children in life jackets so important that we have included this issue on our 2009 "Most Wanted" transportation safety improvements list as one of the areas where critical changes are needed to reduce unnecessary loss of life.

Wisconsin currently requires personal watercraft users to wear PFDs.

The U.S. Coast Guard, the National Association of State Boating Law Administrators, and the American Academy of Pediatrics all support requiring children age 12 and under to wear PFDs. So also do many organizations representing recreational boaters and all segments of the boating community. Enacting this legislation would be an important step toward making boating safer for the children of Wisconsin, as well as providing a more uniform national program for the safety of all children.

Thank you for providing the National Transportation Safety Board an opportunity to testify about this important safety initiative. I would be happy to answer any questions you may have.



# **NTSB**

# ***SAFETY ALERT***

National Transportation Safety Board

## **★ Recreational Boating**

### ***Learn safe boating and protect your children***

#### ***Recreational boating deaths: a **SERIOUS** problem***

- Recreational boating is fun, but the water can be unforgiving.
- Over the past 10 years, 7,150 boaters have died—and 5,050 of them by drowning.
- Deaths are the result of two major safety failures: lack of a required personal flotation device (life jacket), and uneducated boaters.
- In 2007, as many as 90 percent of drowning victims could still be alive if they had worn life jackets.
- In 2007, 86 percent of fatalities occurred on boats where recreational boat operators had not completed a boating safety education course.
- Most of those who drowned were in open motorboats—48 percent—and in boats less than 21 feet in length—77 percent.

#### ***What can you do to reduce recreational boating accidents and deaths?***

- Use a life jacket when aboard a recreational boat and be sure that children always wear life jackets. Life jackets are effective. Boating accident data shows that when mandatory life jacket requirements are adopted, drowning fatalities go down.
- Most parents would not drive anywhere without their kids in seatbelts, car seats or booster seats. Parents should not hesitate to protect their children on the water in a life jacket.
- Complete a recreational boating safety course approved by your State.
- Talk or write to your State lawmakers and urge them to support the NTSB's recommendations that States require children to wear life jackets and require all recreational boating operators to complete a boating safety education course.

#### ***What should States do to make recreational boating safer?***

- Establish a State minimum boating safety program that:
  - Requires children, under age 13, to wear life jackets.
  - Requires all State recreational boating operators to complete a boating safety education course.
- As of November 2008, 48 States, the District of Columbia, Puerto Rico and the U.S. Virgin Islands have enacted laws or regulations requiring children to wear life jackets. Wisconsin and Virginia need mandatory life jacket requirements.
- Fourteen States need to act to adopt mandatory boating education safety requirements for all recreational boaters. They are: Alaska, Arizona, California, Hawaii, Idaho, Indiana, Maine, Massachusetts, Minnesota, Montana, North Carolina, South Carolina, Utah, and Wyoming.

#### ***Need more information?***

- Visit the NTSB Web site: [www.nts.gov](http://www.nts.gov) and click on the Marine section of the Most Wanted List.

2009

Members of the Committee:

My name is Maureen Van Dinter. I register in favor of passage of SB 162. I am a Pediatric Nurse Practitioner, past president of the state organization, and past legislative chair. I am also a member of the US Coast Guard Auxiliary, an organization dedicated to boating safety.

We have all recognized the deleterious effects of poor decisions; driving without seat belts, falling from a height, failing to check prior to crossing a busy street. In many of those instances we have protected our children by requiring passive protection such as mandated fencing around balconies, swimming pools, and stairways, and encouraging children to always use a crosswalk with the lights.

Our state waters have seen lives cut short, families mourning losses, and many avoidable accidents. Our USCGAUX safety patrols have seen far too many children on boats without any float protection. The American Academy of Pediatrics Policy Statement, issued in August 2003, to prevent drowning in infants, children and adolescents states that "Coast Guard approved equipment should be available to children to use when in and around water". Research by Frederick Rivara into the events surround accidents in children identifies drowning as a major cause of unintentional injury. The CDC, in their studies of risk factors related to water related fatalities noted that drowning is the second leading cause of unintentional injury related deaths in children ages 1-14. They urge, "Use U.S. Coast Guard approved life jackets when boating, regardless of distance to be traveled, size of boat, or swimming ability of boaters" as a means of preventing further drowning.

Children are a precious commodity and the future of our country. We must act to decrease the water fatalities in this state. Please pass SB 162.

## **Testimony of John Van Dinter on Mandatory PFD Wear for Children**

Senator Holperin and members of the Committee on Transportation, Tourism, Forestry, and Natural Resources it is a pleasure to have the opportunity to address this distinguished group. I am John Van Dinter. I live in the Town of Westport, Dane County, Wisconsin. I'm a member of the United States Coast Guard Auxiliary and am here testifying as the Wisconsin State Legislative Liaison Officer for that organization. I have lived and boated the waters of Wisconsin for 60+ years.

The United States Coast Guard Auxiliary is the civilian, uniformed, volunteer component of the United States Coast Guard, as well as the lead volunteer force in the Department of Homeland Security. It is made up of approximately 38,000 volunteer members. As such, the Coast Guard Auxiliary is charged with promoting the Recreational Boating Safety Programs throughout the United States. We are very active in the state of Wisconsin and provide many Boating Safety Classes, Vessel Safety Checks, and Safety Patrols on all of our waters.

Our members and I strongly favor and support mandatory PFD wear for children. According to the American Boating Association: Boating Fatality Facts, of 685 boating fatalities in 2007, over two-thirds of these boating accident victims drowned, and of those, ninety (90) percent were not wearing a life jacket. Sixteen (16) children age 12 and under lost their lives while boating in 2007. Half (8) of the children who died in 2007 died from drowning. According to the Wisconsin DNR during the same period, Wisconsin suffered a total of 18 fatalities of all ages, 13 of which were attributable to drowning. Wearing a PFD could have prevented most of these unnecessary deaths. PFDs save lives.

As a member of the Coast Guard Auxiliary I am required at all times whether on a dock or a vessel, while under Coast Guard orders, to wear a properly fitting PFD (Personal Flotation Device or Life vest). Because of the importance of this safety device I always wear one, even while boating recreationally and require all passengers on my boat to do so. Many of the new life vests are of a comfortable and effective design and are easy to wear for prolonged periods of time. They are the equivalent safety measures to seatbelts in a car.

We have all recognized the deleterious effects of bad decisions; driving drunk, driving without seat belts, shooting a gun without proper preparation or education. In those instances state governments have protected our children by implementing laws designed to protect children. For example, there are laws requiring boat operators below a certain age to have approved boating education, and laws requiring hunter safety classes for children wishing to hunt with parents or grandparents.

In an emergency, a child is probably not developmentally mature enough to grab a life vest and properly put it on. Their motor skills do not develop sufficiently to master the art of finding a vest and putting it on in a quick and safe manner. As part of the U.S. Coast Guard Auxiliary's boating safety education mission, we demonstrate how hard it is to put on a PFD while in the water. In several of the video clips, including "Be smart. Be Safe", adults are placed in the water and are told to put on a PFD. The adults are observed in this non-emergency situation thrashing around in the water and demonstrate how difficult it is to put on a PFD. In a real emergency situation when there are winds, waves and cold water it would be even more difficult to put on a PFD.

The Coast Guard Auxiliary wants our children to experience the pleasures of water activities. The Coast Guard Auxiliary encourages the State of Wisconsin to protect children involved in



water activities by supporting life vest legislation. Children must have the correctly sized life vests worn and secured at all times when they are boating.

Federal regulations now require that children under 13 years of age (that are not in a cabin or below deck) must wear a PFD on all recreational boats while underway. This applies on waters subject to federal jurisdiction. This regulation, which does not specify any maximum boat length, is already in effect on all Federal waters in Wisconsin.

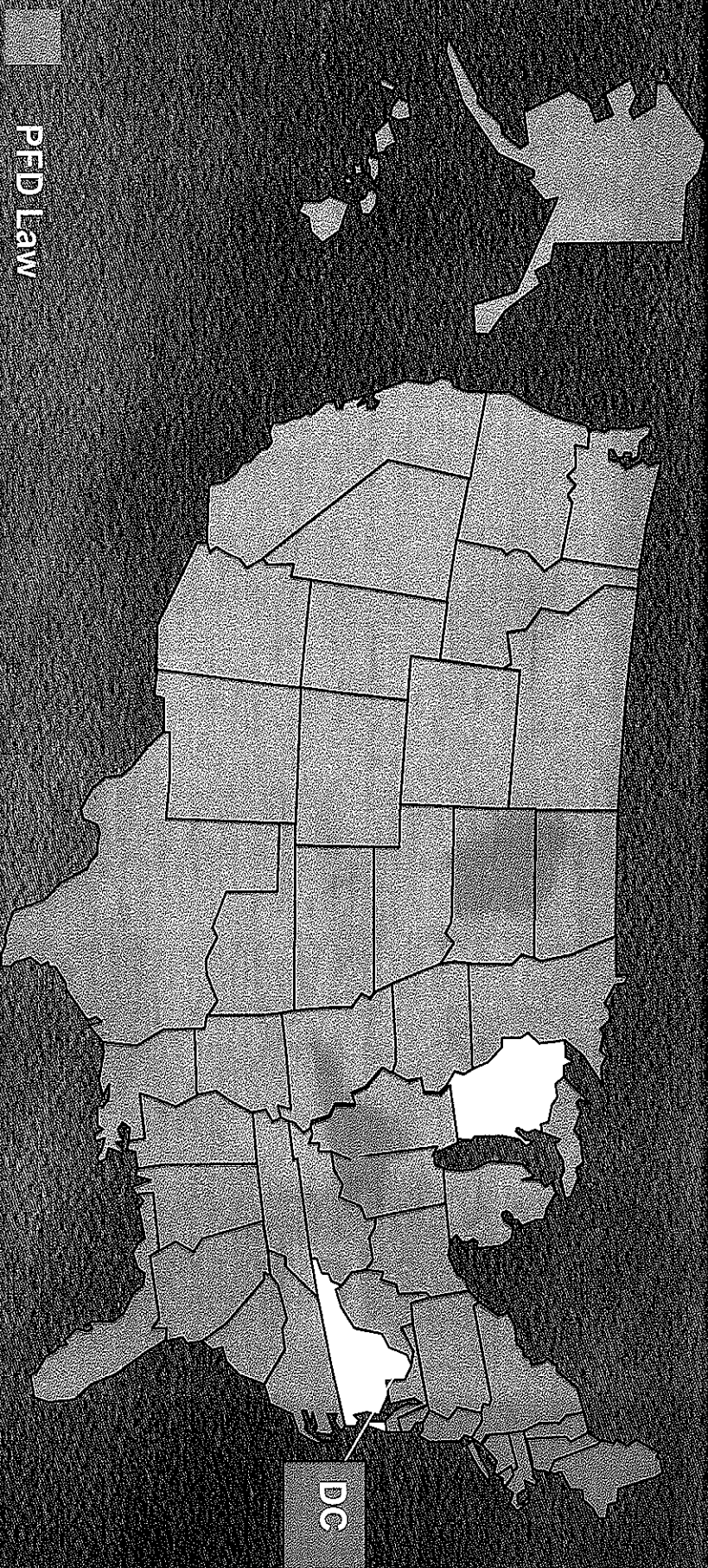
At the annual meeting of the United States Coast Guard Auxiliary National Board in Nashville, Tennessee, on 30 August 2003, the following resolution relating to recreational boating safety was approved and passed:

*Resolved that, the National Board of the United States Coast Guard Auxiliary supports the mandatory wearing of personal flotation devices (PFDs) approved by the Coast Guard by all children under 13 years of age while aboard recreational vessels under way, except when the children are below decks or in enclosed cabins.*

This is the official position of the United States Coast Guard Auxiliary in regards to mandatory wearing of a PFD. This resolution also does not specify the maximum boat length. In the interest of saving lives and greatly enhancing Recreational Boating Safety please pass a resolution to support mandatory PFD wear and work to make it law in Wisconsin. It will save lives.

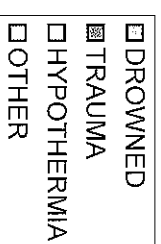
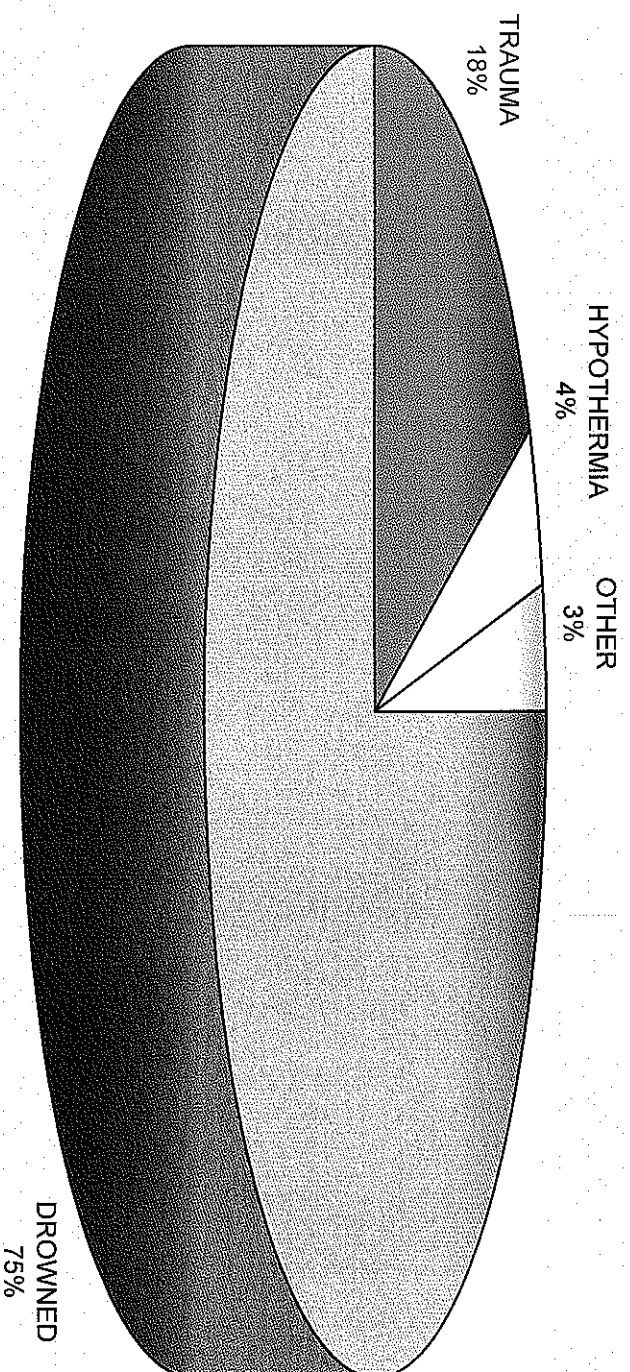
Thank you for allowing me to testify on behalf of the United States Coast Guard Auxiliary about this important matter. I would be happy to answer any questions that you might have.

# Personal Flotation Device Laws for Children



As of March 2009

## TYPE OF BOATING FATALITIES 1999-2008



**1994 – 2008  
Child Boating Fatalities  
12 years old and younger**

Year	Total Number of Deaths	Age of Victim	PFD Worn	Cause of Death
1994	21	8	No	Drowned, capsized
		9	No	Drowned, capsized
1995	15			
1996	19	11	No	Drowned, fell overboard in rough water
		6	No	Drowned, fell overboard reaching for fishing pole
1997	29	9	No	Trauma, struck by propeller, riding on front of pontoon w/feet in water-fell off
1998	15			
		12	No	Drowned, rough water capsized
1999	18	12	Yes	Drowned, overloaded boat capsized, victim trapped beneath boat
2000	25			
		9	Yes	Trauma, collision with PWC while tubing
2001	21	11 months	No	Drowned, tubing on river
2002	19	13	No	Drowned, canoe capsized
2003	18			
2004	25	12	No	Drowned, overloaded boat capsized
2005	22			
2006	10			
2007	18			
		8* 10*	No	Drowned, Two children aged 8 and 10 drowned on the Mississippi River when the boat they were fishing in (with their parents) drifted too near a dam and capsized. These deaths occurred on the Minnesota side of the river.
2008	22			
<b>Totals</b>	<b>297</b>	<b>13</b>	<b>85% of these children were not wearing lifejackets</b>	

## Actions needed by States

### HIGHWAY

#### Improve Child Occupant Protection

- Enact State laws requiring booster seats for young children up to age 8.

#### Enact Primary Seat Belt Enforcement Laws

- Increase number of people who wear seat belts through stronger enforcement laws that don't restrict officers to observing another offense first.

#### Reduce Distractions for Young Drivers

- Prohibit use of interactive wireless communications devices by young novice drivers.
- Restrict the number of teen passengers traveling with young novice drivers.
- Enact graduated driver licensing legislation.

#### Eliminate Hard Core Drinking Driving

- Enact legislation to reduce crashes involving repeat offenders who drink large amounts of alcohol, including:
  - Frequent, statewide sobriety checkpoints.
  - More effective measures (sanctions/treatment) for first time arrests with high blood alcohol concentration and repeat offenders.
  - Zero blood alcohol requirement for those already convicted of driving while intoxicated.
  - Administrative license revocation for refusing to take or failing an evidential test for alcohol.
  - Vehicle sanctions for DWI offenders to separate drinking from driving.
  - Elimination of plea-bargaining DWI offenses and programs that divert offenders and purge offense records.
  - DWI offense records retention for at least 10 years to identify repeat offenders.
  - Special sanction court-based programs such as DWI courts for hard core DWI offenders.

### MARINE

#### Enhance Recreational Boating Safety

- Require mandatory education of boat operators.
- Require use of life jackets by children.



## National Transportation Safety Board

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November 2008



# NTSB MOST WANTED LIST

## Transportation Safety Improvements

# 2009

*Critical changes needed to reduce  
transportation accidents and save lives.*



# NTSB MOST WANTED LIST

## AVIATION: The Federal Aviation Administration should:

### Improve Safety of Emergency Medical Services Flights

- Conduct all flights with medical personnel on board in accordance with commuter aircraft regulations.
- Develop and implement flight risk evaluation programs.
- Require formalized dispatch and flight-following procedures including up-to-date weather information.
- Install terrain awareness and warning systems on aircraft.

### Improve Runway Safety

- Give immediate warnings of probable collisions/incursions directly to cockpit flight crews.
- Require specific air traffic control clearance for each runway crossing.
- Install cockpit moving map displays or automatic systems to alert pilots of attempted takeoffs from taxiways or wrong runways.
- Require landing distance assessment with an adequate safety margin.

### Reduce Dangers to Aircraft Flying in Icing Conditions

- Use current research on freezing rain and large water droplets to revise the way aircraft are designed and approved for flight in icing conditions.
- Apply revised icing requirements to currently certificated aircraft.
- Require that airplanes with pneumatic deice boots activate boots as soon as the airplane enters icing conditions.

### Improve Crew Resource Management

- Require commuter and on-demand air taxi flight crews to receive crew resource management training.

### Require Image Recorders

- Install crash-protected image recorders in cockpits to give investigators more information to solve complex accidents.

### Reduce Accidents and Incidents Caused by Human Fatigue

- Set working hour limits for flight crews, aviation mechanics and air traffic controllers based on fatigue research, circadian rhythms, and sleep and rest requirements.\*
- Develop a fatigue awareness and countermeasures program for air traffic controllers.\*\*

## MARINE: The U.S. Coast Guard should:

### Reduce Accidents and Incidents Caused by Human Fatigue

- Set working hour limits for mariners based on fatigue research, circadian rhythms, and sleep and rest requirements.

## NTSB ACTION/TIMELINESS CLASSIFICATION

- Unacceptable response
- Acceptable response, progressing slowly
- Acceptable response, progressing in a timely manner

# Actions needed by Federal Agencies

## HIGHWAY: The Federal Motor Carrier Safety Administration should:

### Restrict Use of Cellular Telephones

- Prohibit cellular telephone use by commercial drivers of school buses and motorcoaches, except in emergencies.

### Require On-board Electronic Recorders

- Require all interstate commercial vehicle carriers to use electronic on-board recorders to collect data on both driver hours of operation and accident conditions.

### Improve Safety of Motor Carrier Operations

- Prevent motor carriers from operating if they put vehicles with mechanical problems on the road or unqualified drivers behind the wheel.

### Prevent Medically Unqualified Drivers from Operating Commercial Vehicles

- Establish a comprehensive medical oversight program for interstate commercial drivers.
- Ensure that medical examiners are qualified.
- Track all medical certificate applications.
- Enhance oversight and enforcement of invalid certificates
- Provide mechanisms for reporting medical conditions.

## The National Highway Traffic Safety Administration should:

### Prevent Collisions by Using Enhanced Vehicle Safety Technology

- Require adaptive cruise control and collision warning system standards for all new passenger and commercial vehicles.

### Enhance Protection of Motorcoach Passengers

- Redesign motorcoach window emergency exits so they can be easily opened.
- Issue standards for stronger bus roofs; require them in new motorcoaches.
- Devise new standards to protect motorcoach passengers from being thrown out of their seats or ejected when a bus sustains an impact or rolls over.

### Enhance Protection of School Bus Passengers

- Devise new standards to protect school bus passengers from being thrown out of their seats or ejected when a bus sustains an impact or rolls over.

## PIPELINE: The Pipeline and Hazardous Materials Safety

### Administration should:

### Reduce Accidents and Incidents Caused by Human Fatigue

- Set working hour limits for pipeline controllers based on fatigue research, circadian rhythms, and sleep and rest requirements.

\* This recommendation requires action by both the FAA and the National Air Traffic Controllers Association.

\*\* This recommendation also issued to National Air Traffic Controllers Association.